

**COASTAL IMPACT ASSISTANCE PROGRAM (CIAP)
PROJECT NOMINEE FACT SHEET**

1). Project Title:

GIWW Bank Restoration of Critical Areas in Terrebonne

2). Entity/Individual Nominating Project:

Terrebonne Parish Consolidated Government

3). Contact Information:

Terrebonne Parish Consolidated Government
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Mr. Al Levron
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4). Total State CIAP Funds Requested:

Total CIAP Funds Requested: \$19.7 million

5). Infrastructure Funds Proposed:

There are \$0 infrastructure funds proposed for this project.

6). Description and Location of Project:

This project area is in the Terrebonne Basin, in Terrebonne Parish, Louisiana, along the south bank line of the GIWW.

7). Project Type: Type 1, 2 & 4

This project, a shoreline stabilization project, meets the criteria of CIAP Project Types 1, 2 and 4. It is presented for the conservation, restoration and protection of coastal areas, to mitigate damage to fish, wildlife and natural resources and the implementation of a federally approved marine, coastal or comprehensive conservation management plan. Specifically, Action Plans EM-6 (Shoreline Stabilization and Induced Deposition) and EM-7 (Marsh Management) of the Barataria-Terrebonne National Estuary Program (BTNEP).

8). Project Justification:

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Verrett subbasin flooding and Atchafalaya River flows via the Gulf Intracoastal Waterway (GIWW) have

increased. Deterioration of fresh and intermediate wetlands, particularly of the floating marshes in the upper Penchant Basin, has been attributed to sustained elevated water levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through unnatural connections formed where channel banks deteriorated.

Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine influences coupled with subsidence and altered hydrology from canal dredging that has facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas.

This project is on CWPPRA PPL 10. It was presented for Phase II (construction) funding in December of 2005 but was not selected. Engineering and design are complete. .

Preliminary Project Benefits

The width of the GIWW in the project area ranges from 700 feet to almost 2,000 feet. This large area of open water allows for wave fetch from wind, currents, and boat traffic. This allows water flow from the GIWW into and out of the fragile floating fresh marsh south of the GIWW. These direct hydrologic connections have destroyed adjacent floating marsh and are accelerating the breakup of thin-mat floats. This area of thin-mat floating fresh marsh is quite unique and extremely productive supporting a wide variety of fish and wildlife species. The thin-mat floats in this area are 2"- 8" in thickness and floating on an unconsolidated organic muck. When protected from high velocity turbid water, the floats are usually surrounded by SAVs providing additional protection from wind and waves. When water is funneled through these breaches with increased velocity the floats eventually break into pieces and are exported from the marsh. This converts floating fresh marsh into open turbid water subject to increased export of unconsolidated organics and increased water depths

This proposed project is fully engineered and free of issues. Elimination of these hydrologic connections will result in an immediate benefit to a large area of floating fresh marsh (approx. 30,000 acres). Maintaining this area as floating fresh marsh rather than allowing it to convert to open turbid water will also provide added protection to the Bayou Black Ridge located five (5) miles north. The total project area is 3,324 acres and acreage benefited is 366 acres of back marsh.

This project will provide synergistic effects with the Penchant Basin Plan.

Preliminary Estimated Construction Costs:

\$19,700,000.00

Coast 2050 Strategy:

This project meets the following Coast 2050 strategies:

- Maintaining Shoreline Integrity;

The project also meets the requirements of the specified Action Plans of the BTNEP and is consistent with the restoration goals identified by the Strategic Plan for Coastal Restoration

adopted by the Terrebonne Parish Coastal Zone Management and Restoration Advisory Committee and supported by the Terrebonne Parish Council.

9). Project Cost Share:

The project cost share is unknown at this time.

Attachments

1. CWPPRA Project Nomination Fact Sheet – NRCS



GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)

Project Status

Approved Date: 2001 **Project Area:** 3,324 acres
Approved Funds: \$2.2 M **Total Est. Cost:** \$19.7 M
Net Benefit After 20 Years: 366 acres
Status: Engineering and Design
Project Type: Shoreline Protection

Location

The project is located in the Terrebonne basin, in Terrebonne Parish, Louisiana.

Problems

In the past 20 years, as the efficiency of the Lower Atchafalaya River has decreased, Verrett subbasin flooding and Atchafalaya River flows via the Gulf Intracoastal Waterway (GIWW) have increased. Deterioration of fresh and intermediate wetlands, particularly of the floating marshes in the upper Penchant basin, has been attributed to sustained elevated water levels. In addition, floating marshes in some areas have become directly exposed to increased circulation through unnatural connections formed where channel banks deteriorated.

Conversely, losses in the central Terrebonne Parish marshes have been attributed to the elimination of riverine inflow coupled with subsidence and altered hydrology from canal dredging that facilitated saltwater intrusion. Increased flow of the GIWW and wave pulses from navigation traffic are causing additional breakup and loss of floating marshes in unprotected areas.

Restoration Strategy

This project will restore critical lengths of deteriorated channel banks and stabilize/armour selected critical lengths of deteriorated channel banks with hard shoreline stabilization materials.

Progress to Date

Geotechnical soils investigation report is complete. Soils in the area are very soft and fluid.

This project is on Priority Project List 10.



Large mats of floating freshwater marsh, such as this one, detach from their point of origin and enter the GIWW through large breaches in the existing shoreline.



Concrete "H" pile/panel structures, similar to this one, will be installed at locations within the project area where shoreline erosion is critical. Soils with high amounts of organic material, which have poor strength, necessitated the use of a structure such as this.

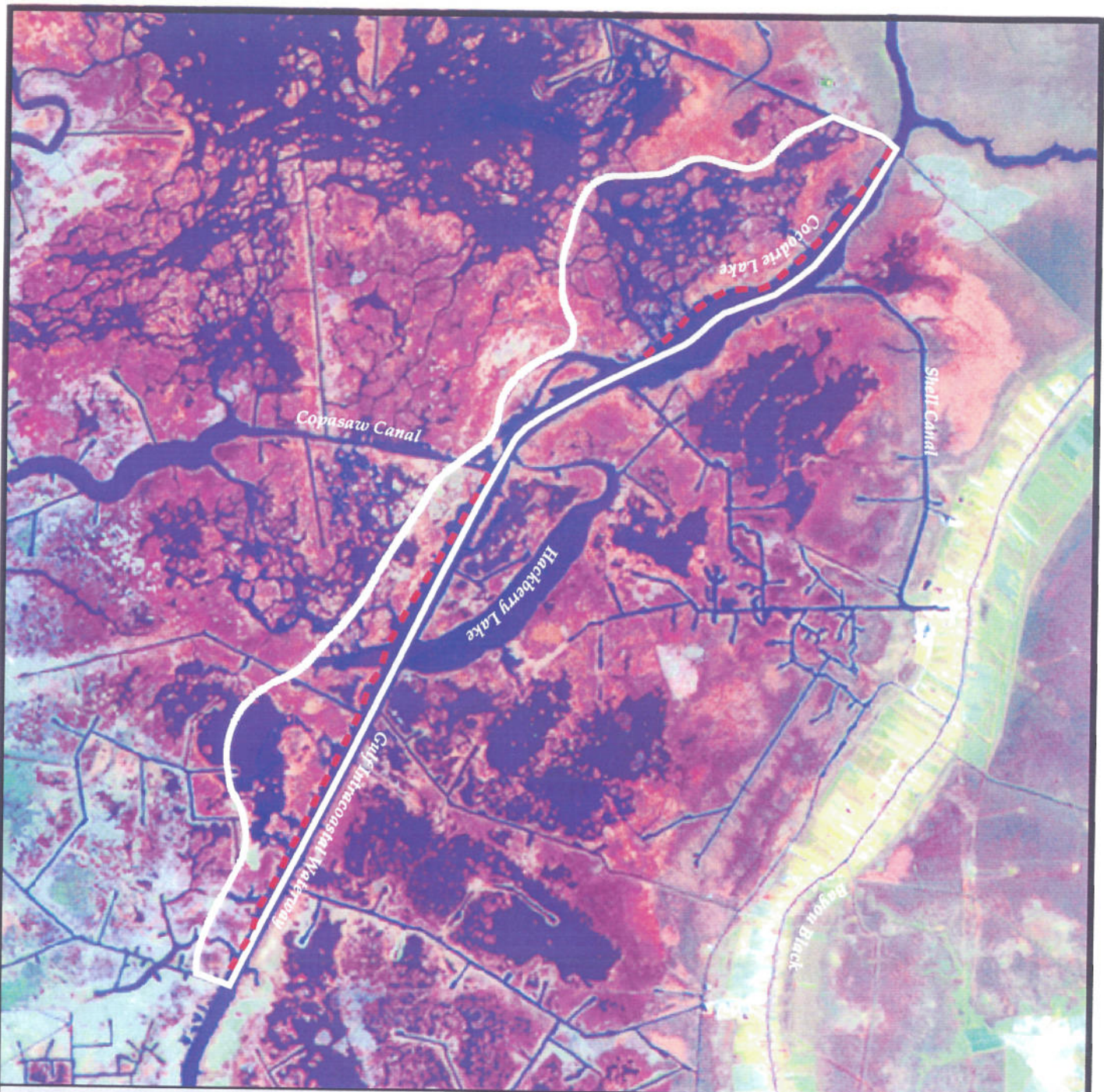
For more project information, please contact:



Federal Sponsor:
 Natural Resources Conservation Service
 Alexandria, LA
 (318) 473-7756



Local Sponsor:
 Louisiana Department of Natural Resources
 Baton Rouge, LA
 (225) 342-7308



GIWW Bank Restoration of Critical Areas in Terrebonne (TE-43)



**Shoreline Protection
Project Boundary**

USGS
science for a changing world



Map Produced By:
U.S. Department of the Interior
U.S. Geological Survey
National Wetlands Research Center
Coastal Restoration Field Station

Background Imagery:
2002 Thematic Mapper Imagery

Map Date: August 27, 2003
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